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10/717,391	11/17/2003	Tony Christianson		7450

7590

09/08/2004

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EXAMINER

MITCHELL, TEENA KAY

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/717,391

Applicant(s)

CHRISTIANSON, TONY

Examiner

Teena Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Information Disclosure Statement***

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

***Claim Objections***

Claim 1 is objected to because of the following informalities: In claim 1 "...the water surface..." lacks antecedent basis. An example of acceptable language would be --a water surface--. In claim 1, "...the movement..." lacks antecedent basis. An example of acceptable language would be -- a movement--Correction is required.

***Specification***

The abstract of the disclosure is objected to because the abstract is longer than 150 words (CFR 1.72). Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen-Lieh (6,516,797) in view of Ferraro (2,815,751).

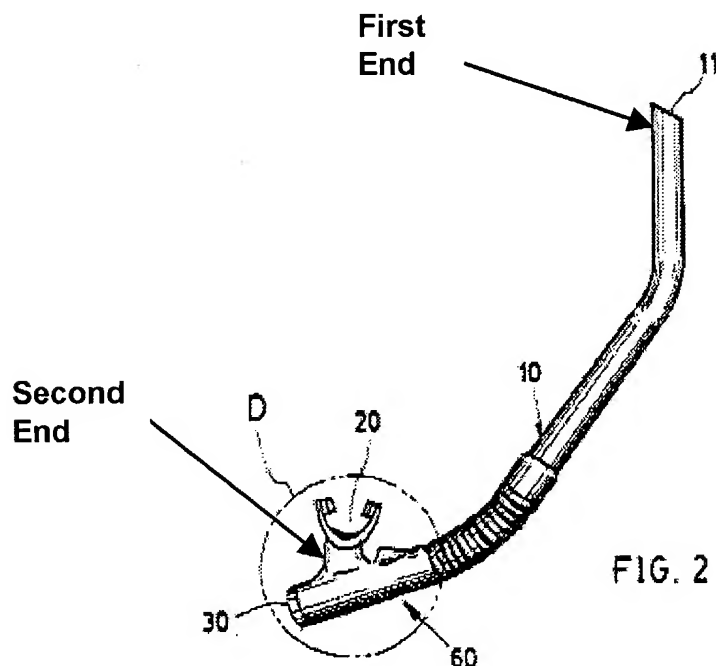
Chen-Lieh in a snorkel device (10) discloses:

- a conduit (10) adapted to extend about the water surface;
- said conduit (10) having a longitudinal axis (Fig. 2);
- said conduit having first and second ends therefrom (see illustration of Fig. 2 below);
- said conduit first end (see illustration of Fig. 2 below) adapted to admit air into said conduit (10) when said conduit first end is above the water surface;
- said ambient air flows unrestricted into said conduit first end along a flow path that is substantially inline with the longitudinal axis of said conduit;
- mouthpiece (20) joined to said conduit second end for communicating fluid flow with said conduit.

The difference between Chen-Lieh and claim 1 is a linkage adjacent said conduit first end with buoyant means. However Chen-Lien discloses that a device preventing entrance of water can be provided on said first end (Col. 3, lines 19-28).

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Ferraro in a mask device teaches a linkage (1-3, 5) with a buoyant means (6) and sealing means (4) carried by said linkage (Figs. 1-3) providing a valve means which provides positive means for preventing water from entering the mask irrespective of the position of the valve. While Ferraro shows the valve device with a mask it would be obvious that the valve (i.e., linkage, buoyant means and seal) can be used on any tubing, which provides air to a user in water (a snorkel being such tubing). Therefore based on the disclosure of Chen-Lieh that a device preventing entrance of water can be provided on the first end of the conduit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the conduit of Chen-Lieh to employ any well known linkage with buoyant means with sealing means carried by the linkage doing so would have provided a means which provides positive means for preventing water from entering the mask irrespective of the position of the valve including the linkage, buoyant, sealing means taught by Ferraro.



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With respect to claim 2, Ferraro teaches said linkage is a compound linkage (Figs. 1-3).

With respect to claim 3, Ferraro teaches wherein said linkage (1-3, 5) forms a four-sided polygon (Figs. 1, 2).

With respect to claim 4, Ferraro teaches wherein said buoyant means (6) is a hollow float.

With respect to claim 5, Ferraro teaches wherein said buoyant means (6) is carried by said linkage (1-3, 5).

With respect to claim 6, Ferraro teaches control means (via 2, 3) joining said buoyant means (6) to said linkage (2, 3).

With respect to claim 7, Ferraro does not teach that the buoyant means (6) is a rigid material but does have less density than water inasmuch as it is buoyant. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the buoyant means made of a rigid having less density than water, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design consideration and one of ordinary skill would look for a material of the buoyant means to be rigid to withstand the pressure of water and the use in the environment of diving/snorkeling.

With respect to claim 8, note rejection of claim 7 above. Ferraro teaches a sealing means (4).

With respect to claim 10, Chen-Lieh discloses a second valve means (30) adjacent said conduit second end, said second valve means (30) arranged to selectively provide unidirectional flow from said conduit to ambient.

With respect to claim 11, Ferraro teaches that said buoyant means (6) is guided at least a portion of said conduit (inasmuch as the buoyant means is attached to the conduit it would be inherent that the buoyant means is guided by at least a portion of said conduit).

With respect to claim 12, Chen-Lieh discloses a snorkel (10) a conduit (10) having a longitudinal axis and first and second open ends thereof (Fig. 2); said conduit first open end adapted to admit ambient fluid into said conduit substantially in line with said longitudinal axis thereby providing a substantially straight and unrestricted flow path (Fig. 2); mouthpiece (20) joined to said conduit second open end for communicating fluid flow with said conduit (10); Ferraro teaches a buoyant means (6) adapted to move relative to said conduit; and sealing means (4) adapted to provided unidirectional flow from said conduit first opening to ambient when said buoyant means (6) is at least partially underwater; said sealing means (4) adapted to be not in the ambient fluid flow path when said buoyant means (6) is out of the water.

With respect to claim 13, Ferraro teaches linkage (1-3, 5) adjacent said conduit first end, said linkage adapted to carry said sealing means (4).

With respect to claim 14, Ferraro teaches the movement of said linkage is controlled by said buoyant means (6; inasmuch as the buoyant means moves in water and pushes the linkage to move thereby moving the sealing means (4)).

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With respect to claim 15, Chen-Lien discloses a conduit (10) having first and second ends thereof (see illustration of Fig. 2 above); said conduit first end adapted to admit ambient fluid into said conduit (10); mouthpiece (20) joined to said conduit (10) second end for communicating fluid flow with said conduit (10); Ferraro teaches sealing means (4) having a closed position that blocks the entry of ambient fluid into the conduit first end (Fig. 3); said sealing means having an open position that does not substantially interfere with the flow of fluid into and out of said conduit first end; control means (2, 3) and linkage operated by said control means (1-3, 5); said linkage adapted to move said sealing means from the open position to the closed position when said control means (2, 3 via 6) is at least partially underwater, and from the closed position to the open position when said control means is out of the water.

With respect to claim 16, Ferraro teaches wherein gravitational and buoyant forces act on said control means; the force due to gravity acting on said control means (2, 3) and water pressure against said sealing means define a combined force (Cols. 2, 3 of Ferraro); said combined force is greater than the buoyant force when said snorkel device (10) is inverted underwater (Figs. 4, 5 of Ferraro).

With respect to claim 17, Chen-Lien discloses second valve means (30) adjacent said conduit second open end, said second valve means (30) arranged to selectively provide unidirectional flow from said conduit to ambient.



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***Allowable Subject Matter***

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The overall combination of the snorkel device with a protective means covering the linkage and sealing means is neither anticipated nor rendered obvious by the prior art of record.

***Conclusion***


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The balance of art is cited to show snorkel devices: 6,679,253; 6,655,378; 6,371,108; 2002/0088459; 6,435,178; 5,524,611; 3,345,984.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teena Mitchell whose telephone number is (703) 308-4016. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Teena Mitchell  
Examiner  
Art Unit 3743  
September 4, 2004